PTO-1449 REPRODUCED	ATTORNEY DOCKET NO. 0717.2013-013	APPLICATION NO. 10/824,697			
INFORMATION DISCLOSURE CITATION IN AN APPLICATION	FIRST NAMED INVENTOR NROGER E. Welser	FILING DATE April 14, 2004			
August 9, 2004 AUG 1 3 2004		CONFIRMATION NO. 6799	GROUP 2813		

	U.S. PATENT DOCUMENTS									
<u></u>	U.S. PATENT DOCUMENTS									
EXAM- INER INI- TIAL	REF. NO.	DOCUMENT NUMBER Number-Kind Code (if known)	ISSUE DATE / PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT						
0	AA	US 2001/0040244 A1	11-15-2001	Fitzgerald, et al.						
(Q)	AB	6,031,256	02-29-2000	Liu, et al.						
0	AC	5,606,185	02-25-1997	Nguyen, et al.						
Ce	AD	US 6,285,044 B1	09-04-2001	Bhat						
0	AE	US 6,150,677	11-21-2000	Tanaka et al.						
œ	AF	US2002/0102847 A1	08-01-2002	Sharps et al.						
	AG	US 6,150,667	11-21-2000	Ishizaka et al.						
(CR)	AH	US 2002/0027232 A1	03-07-2002	Shigematsu et al.						
CO	ΑĬ	4,518,979	05-21-1985	Dumke et al.						
0	ΑJ	5,371,389	12-06-1994	Matsuno et al.						
Ce)	AK	5,429,957	07-04-1995	Matsuno et al.						
@	AA2	5,571,732	11-05-1996	Liu						
(2)	AB2	5,814,843	09-29-1998	Ohkubo						
(3)	AC2	5,858,818	01-12-1999	Ro et al.						
\mathcal{Q}	AD2	5,903,018	05-11-1999	Shimawaki						
	AE2									
	AF2									
	AG2									
	AH2									
	AI2									
	AJ2									
	AK2									
	AA3									
	AB3									
	AC3									

EXAMINER College Col	DATE CONSIDERED 09/23/05
Ψ • /	

PTO-J449 REPRODUCED

INFORMATION DISCLOSURE CITATION IN AN APPLICATION

August 9, 2004

(Use several sheets if necessary)

ATTORNEY DOCKET NO. 0717.2013-013

APPLICATION NO. 10/824,697

FIRST NAMED INVENTOR Roger E. Welser

FILING DATE April 14, 2004

EXAMINER Collegers
Not Assigned Rodgers

CONFIRMATION NO. 6799

GROUP 2813

	FOREIGN PATENT DOCUMENTS					
		TRANSI YES	TRANSLATION YES NO			
60)	AL	WO 01/03194 A1	01-11-2001	Picogiga	Х	
(CE)	АМ	WO 02/43155 A2	05-30-2002	Kopin Corporation		
æ	AN	FR 2 795 871 A1	01-05-2001	Picogiga		Х
(P)	AO	JP 11312685	11-09-1999	Fujitsu Ltd.		Х
	AP					
	AQ					
	AL2	,				
	AM2					
	AN2					
	AO2					
	AP2			·		
	AQ2					
	AL3					
	AM3					
	AN3					
	AO3					
	AP3				·	
	AQ3					
	AL4					
	AM4					
	AN4					
_	AO4					
	AP4					,
	AQ4					· .

RXAMTNER	
α_{00}	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 CASTELLO	My Course
	<u> </u>

PTQ	1449 REPRODUCED	ATTORNEY DOCKET NO. 0717.2013-013		APPLICATION NO. 10/824,697		
	INFORMATION DISCLOSURE CITATION IN AN APPLICATION	FIRST NAMED INVENTOR Roger E. Welser		FILING DATE April 14, 2004		
	August 9, 2004	EXAMINER Collections	CONFIRMATION NO.		GROUP	
	(Use several sheets if necessary)	Not Assigned 1200	6799		2813	

	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
œ	AR	Chang, et al., "InGaAsN/AlGaAs P-n-p heterojunction bipolar transistor," Applied Physics Letters, 79(19):2788-2790 (2000).						
(3)	AS	Welser, et al., "Low V _{be} GaInAsN Base Heterojunction Bipolar Transistors," <i>IEICE Trans. Electron.</i> , E84-C(10): 1389-1393 (2001).						
ω	AT	Li, et al., "DC characteristics of MOVPE-grown Npn InGaP/InGaAsN DHBTs," Electronics Letters, 36(1): 81-83 (2000).						
@	AU	Kohama, et al., "Using Carbon Tetrachloride for Carbon Doping Al _x Ga _{1-x} As Grown by Metalorganic Chemical Vapor Deposition," <i>Jpn. J. Appl. Phys.</i> , 34(7A): 3504-3505 (1995).						
Q	AV	Sugiura, et al., "Characterization of heavily carbon-doped InGaAsP layers grown by chemical beam epitaxy using tetrabromide," Applied Physics Letters, 73(17):2482-2484 (1998).						
3	AW	Bhat, et al., "Growth of GaAsN/GaAs, GaInAsN/GaAs and GaInAsN/GaAs quantum wells by low-pressure organometallic chemical vapor deposition," Journal of Crystal Growth, 195: 427-437 (1998).						
@	AX	Chang, et al., "InGaP/InGaAsN/GaAs NpN double-heterojunction bipolar transistor," Applied Physics Letters, 76(16):2262-2264 (2000).						
œ	AY	Welser, R.E., et al., "Role of Neutral Base Recombination in High Gain AlGaAs/GaAs HBT's," IEEE Transactions on Electron Devices, 46(8):1599-1607(1999).						
®	ΑZ	Ahmari, D.A., et al., "High-speed InGaP/GaAs HBT's with a Strained In _x Ga _{1-x} As Base," <i>IEEE Electron Device Letters</i> , 17(5):226-228(1996).						
œ	AR2	Welser, R.E., et al., "Turn-on Voltage Investigation of GaAs-Based Bipolar Transistors with Ga _{1-x} In _x As ₁ , _y N _y Base Layers," <i>IEEE Electron Device Letters</i> , 21(12):1-4(2000).						
œ	AS2	Low, T., et al., "InGaP HBT technology for RF and microwave instrumentation," Solid-State Electronics, 43:1437-1444(1999).						
œ	AT2	Liu, W., et al., "Current Transport Mechanism in GaInP/GaAs Heterojunction Bipolar Transistors," IEEE Transactions on Electron Devices, 40(8):1378-1383(1993).						
@	AU2	Lu, Z.H., et al., "Determination of band gap narrowing and hole density for heavily C-doped GaAs by photoluminescence," Appl. Phys. Lett., 64(1): 88-90(1994).						

EXAMINER Collien & Co.S.	DATE CONSIDERED 09/23/05

PTO-1449 REPRODUCED	ATTORNEY DOCKET NO. 0717.2013-013		APPLICATION NO. 10/824,697		
INFORMATION DISCLOSURE CITATION IN AN APPLICATION	FIRST NAMED INVENTOR Roger E. Welser		FILING DATE April 14, 2004		
August 9, 2004 (Use several sheets if necessary)	EXAMINER Colleen Not Assigned Rodgers	CONFI 6799	RMATION NO.	GROUP 2813	

	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
Œ	AV2	Welser, R.E., et al., "High Performance Al _{0.35} Ga _{0.65} As/GaAs HBT's," IEEE Electron Device Letters, 21(5):196-199(2000).						
œ	AW2	Welser, R.E., et al., "Base Current Investigation of the Long-Term Reliability of GaAs-Based HBTs," GaAs Mantech, (2000).						
æ	AX2	Patton, G.L., et al. "Graded-SiGe-Base, Poly-Emitter Heterojunction Bipolar Transistors," IEEE Electron Device Letters, 10(12):534-536(1989).						
@	AY2	Ida, M., et al., "InP/InGaAs DHBTs with 341-Ghz f _T at high current density of over 800 kA/cm ² ," IEEE, (2001).						
æ	AZ2	Kroemer, H., "Heterostructure bipolar transistors: What should we build?" J. Vac. Sci. Technol., B1(2):126-130(1983).						
œ	AR3	Fujihara, A., et al., "High-speed InP/InGaAs DHBTs with Ballistic Collector Launcher Structure," IEEE, (2001).						
Œ	AS3	Nakahara, K., et al., "Continuous-wave operation of long-wavelength GaInNAs/GaAs quantum well laser," <i>Electronic Letters</i> , 32(17): 1585-1586(1996).						
@	АТЗ	Mochizuki, K., et al., "GaInP/GaAs Collector-Up Tunneling-Collector Heterojunction Bipolar Transistors (C-Up TC-HBTs): Optimization of Fabrication Process and Epitaxial Layer Structure for High-Efficiency High-Power Amplifiers," Transactions on Electron Devices, 47(12):2277-2283(2000).						
æ	AU3	Pan, N., et al., "Pseudomorphic In-Graded Carbon Doped GaAs Base Heterojunction Bipolar Transistors by Metal Organic Chemical Vapor Deposition," Journal of Electronic Materials, 25(7):13 (1996).						
æ	AV3	Ohkubo, M., et al., "Compositionally Graded C-doped In _{1-x} Ga _x As Base in InP/InGaAs D-HBTs Grown by MOCVD with Low Base Sheet Resistance and High Current Gain", IEEE, pp. 641-644, 1997.						
œ	AW3	Stockman, S. A., et al., "Carbon Doping of In _x Ga _{1-x} As By MOCVD Using CCI ₄ ", pp. 40-43, no date given.						
CO.	AX3	Keiper, D., et al., "Metalorganic Vapour Phase Epitaxy Growth of InP-based Heterojunction Bipolar Transistors with Carbon Doped InGaAs Base Using Tertiarybutylarsine and Tertiarybutylphosphine in N ₂ Ambient", XP-001030248, Jpn. J. Appl. Phys., Vol. 39:6162-6165 (2000).						

EXAMINER OCCUPATION D	DATE CONSIDERED	09/23/05

PTQ-1449 REPRODUCED	ATTORNEY DOCKET NO. 0717.2013-013		APPLICATION NO. 10/824,697		
INFORMATION DISCLOSURE CITATION IN AN APPLICATION	FIRST NAMED INVENTOR Roger E. Welser		FILING DATE April 14, 2004		
August 9, 2004 (Use several sheets if necessary)	EXAMINER Padgers Not Assigned	CONFI 6799	IRMATION NO.	GROUP 2813	

	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
æ	AY3	Stillman, G. E., et al., "Carbon-doped InGaAs grown by MOCVD for InP/InGaAs heterojunction bipolar transistors", Inst. Phys. Conf. Ser. No. 129:687-692 (1992).		

College Colg Date considered 09/23/05		
	(a,b)	09123105

PTO-1449 REPRODUCED	ATTORNEY DOCKET NO. 0717.2013-013		LICATION NO. 824,697	
SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION	FIRST NAMED INVENTOR Roger E. Welser		FILING DATE April 14, 20	004
April 19, 2005 (Use several sheets if necessary)	EXAMINER Olleganders Whitehead Jr. Carl W.	CONFI 6799	RMATION NO.	GROUP 2813

U.S. PATENT DOCUMENTS				
EXAM- INER INI- TIAL	REF. NO.	DOCUMENT NUMBER Number-Kind Code (if known)	ISSUE DATE / PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT
0	AE2	6,847,060 B2	01-25-2005	Welser, et al.
	-			
<u> </u>				
<u> </u>				
 				
<u> </u>				
	 			
				
 				
	<u> </u>	,		
 	ļ			
	ļ		•	· · · · · · · · · · · · · · · · · · ·
	 			
	<u> </u>			
	ļ			
	1			

EXAMINER ORD SIGNO	
Crown Go Ty	

PTO-1449 REPRODUCED	ATTORNEY DOCKET NO. 0717.2013-013	application no. 10/824,697	
SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION	FIRST NAMED INVENTOR Roger E. Welser FILING DATE April 14, 200		004
April 19, 2005 (Use several sheets if necessary)	EXAMINER College Rodge & Whitchead Jr. Carl W.	ONFIRMATION NO.	GROUP 2813

	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
(Ce)	AZ3	Kroemer, H., "Two Integral Relations Pertaining to the Electron Transport Through a Bipolar Transistor With a Nonuniform Energy Gap in the Base Region," Solid-State Electronic, 28(11):1101-1103 (1985).		
٨	AR4	Maziar, C. M., and Lundstrom, M. S., "On the Estimation of Base Transit Time in AlGaAs/GaAs Bipolar Transistors," <i>IEEE Electron Device Lett.</i> 8: 90-91 (1987).		
3	AS4	Stockman, S. A., et al., "Growth of carbon-doped p-type InxGa1-xAs (0 <x≤0.53) (1992).<="" 60(23):2903-2905="" appl.="" by="" chemical="" deposition,"="" lett="" metalorganic="" phys.="" th="" vapor=""></x≤0.53)>		
,	,			
	·			

EXAMINER	DATE CONSIDERED
Collegy Rogen	09/23/05

@PFDesktop\:ODMA/MHODMA/HBSR05-iManage;542697;1